

Environmental Product Fact Sheet #11 Pool Ionization Massachusetts Operational Services Division

What is Pool Ionization?

Pool Ionization, already in use in several commercial / public swimming pools in Massachusetts, represents an environmentally preferable alternative to the traditionally heavy use of chlorine. Ionization as it is applied to swimming pools, is the process of using a low voltage current to disperse positively charged copper and silver ions into the water. Since bacteria is negatively charged, these particles are attracted to the ions and are killed off as the charge penetrates the cell walls. The destroyed microorganisms clump together and are easily removed by the pool filter. **These systems can result in a reduction of up to 80% in the use of chlorine.**

Commercial ionization units typically consist of a micro processor control box and a set of electrodes composed of copper and silver that are set slightly apart from one another in a cartridge at the site of the pool filter. The control box generates a precise low voltage DC current that travels between the electrodes and produces positively charged ions. Furthermore the water leaving the filter carries some of the ions into the pool, where the ions continue to kill bacteria, viruses, algae and fungi. The design of the control box varies by manufacturer and the installation depends on the type of pool.

While there are several manufacturers of ionization systems on the market, **the two systems offered on this contract are both approved and certified by the National Sanitation Foundation (NSF) and Massachusetts Department of Public Health.** Interested customers should check the Commonwealth's web site, www.comm-PASS.com, or call directly the two **statewide contractors** listed below.

Massachusetts State Contract #FAC17 Expiration: 10/28/02

Contractor Information	Contact Person	Products / Services Offered
Water Purification Associates 2 Rockwood Terrace Jamaica Plain, MA 02130	James Cochin 888-214-0999 617-524-3160 617-524-8042 fax jrcwpa@msn.com	1) All equipment, products and services necessary to install, maintain and service the ionization technology, including training to customers and pool operators as needed. Manufacturer - Superior Aqua Enterprises
Conservation Solutions Corporation 162 Great Road Acton, MA 01720	Dan Cook 888-266-1945 978-266-1900 978-266-1976 fax consvsol@aol.com	1) All equipment, products and services necessary to install, maintain and service the ionization technology, including training to customers and pool operators as needed. Manufacturer - Caribbean Clear 2) Scale Removal for Pools/Spas Manufacturer - Nexteq Systems - "Chemical Free" treatment for boilers, cooling towers & chillers

References

1. Thomas J. White, "Swimming Pool Disinfection: Efficacy of Copper/Silver Ions with Reduced Chlorine Levels," (Journal of Environmental Health); 05-01-1999.
2. Gerba, C.P., S.M. Kutz, L.K. Landeen, and M.T. Yahya (1989), "Swimming Pool Disinfection, An Evaluation of the Efficacy of Copper:Silver Ions," (Journal of Environmental Health), 51(5):282-285.
3. Gerba, C.P., S.M. Kutz, L.K. Landeen, M.C. Messina, R. Schulze, and M.T. Yahya (1990), "Disinfection of Bacteria in Water Systems by Using Electrolytically Generated Copper:Silver and Reduced Levels of Chlorine," (Canadian Journal of Microbiology), 36(2):109-116.

* To receive copies of reference materials, contact OSD: marcia.deegler@osd.state.ma.us; or, 617-720-3356.